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What is claimed is:

- 1. An active energy ray curable ink-jet ink comprising an epoxy compound containing an alicyclic epoxy group and an epoxyfied fatty acid ester group.
- 2. The active energy ray curable ink-jet ink according to Claim 1, wherein the epoxy compound is represented by following Formula (1):

Formula (1)

$$R_2 \xrightarrow{\text{CH}_2 \xrightarrow{}_{n2}} OOC - X - Y - Z - R_1$$
 $CH_2 \xrightarrow{}_{n2} OOC - X' - Y' - Z' - R_1$

wherein

 R_1 is an alkyl group having 1 to 10 carbon atoms, R_2 is a divalent linkage group having an alicyclic epoxy group,

 \mathbf{X} , \mathbf{Y} and \mathbf{Z} are independently selected from the group consisting of

$$-(CH_2)_{n1}$$
 $-(CH_2-CH=CH)_{m2}$ and $-(CH_2-CH=CH)_{m1}$

provided that X, Y and Z are each different,

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 $\mathbf{X'}$, $\mathbf{Y'}$ and $\mathbf{Z'}$ are independently selected from the group consisting of

$$-(CH_2)_{n1}$$
 $-(CH_2-CH=CH)_{m2}$ and $-(CH_2-CH=CH)_{m1}$

provided that X', Y' and Z' are each different, n1 is an integer from 1 to 20, n2 is an integer from 0 to 10, m1 is an integer from 1 to 10, m2 is an integer from 0 to 10, the sum of (m1 + m2) is from 1 to 20.

- 3. The active energy ray curable ink-jet ink according to Claim 1, wherein the ink further comprises at least one of an oxetane ring containing compound and a vinyl ether compound.
- 4. The active energy ray curable ink-jet ink according to Claim 1, wherein the ink further comprises a cationic photo polymerization initiator.
- 5. The active energy ray curable ink-jet ink according to Claim 1, wherein the ink further comprises a pigment.

- 6. The active energy ray curable ink-jet ink according to Claim 5, wherein the ink further comprises a pigment dispersing agent.
- 7. The active energy ray curable ink-jet ink according to Claim 5, wherein an average particle diameter of the pigment is 10 to 150 nm.
- 8. The active energy ray curable ink-jet ink according to Claim 1, wherein a viscosity at 25 °C of the active energy ray curable ink is 5 to 50 mPa·s.
- 9. A printed material formed by using the active energy ray curable ink-jet ink according to Claim 1 on a base material.